

List of Abbreviations

ee	enantiomeric excess
¹³ C CP MAS NMR	Cross-Polarization Magic Angle Spinning Nuclear Magnetic Resonance
ATH	Asymmetric Transfer Hydrogenation
BET	Brunauer-Emmett-Teller
BINAP	2,2'-bis(diphenylphosphino)-1,1'-binaphthyl
BINOL	1,1'-Bi-2-naphthol
CH ₂ Cl ₂	Dichloromethane
CTAB	Cetyltrimethylammonium bromide
DFT	Density Functional Theory
DHPMs	3,4-dihydropyrimidin-2-(1 <i>H</i>)-one
DTG	Differential thermogravimetry
EDAX	Energy-dispersive X-ray analysis
EtOAc	Ethyl acetate
EtOH	Ethyl alcohol
FTIR	Fourier-transform infrared
GO	Graphene Oxide
HPLC	High-performance liquid chromatography
HRTEM	High-resolution Transmission Electron Microscopy
ICP-AES	Inductively Coupled Plasma Atomic Emission Spectroscopy
IPA	Isopropyl Alcohol
LDH	Layered Double Hydroxide
LMs	Layered Materials
MCF	Mesostructured Cellular Foam

MCM	Mobil Composition of Matter
MCRs	Multi-component reactions
MeOH	Methanol
MMT	Montmorillonite
MOCPs	Metal Organic Coordination Polymers
MOFs	Metal–organic frameworks
MSNs	Mesoporous silica nanoparticles
MWW	Mobil composition of Matter-twenty-two
NMAPTES	N-methyl-3-aminopropyltriethoxysilane
NMR	Nuclear Magnetic Resonance
PEG	Polyethylene glycol
PTC	Phase Transfer Catalyst
SAXS	Small-angle X-ray Scattering
SBA	Santa Barbara Amorphous
SEM	Scanning electron microscopy
TEOS	Tetraethyl orthosilicate
TGA	Thermogravimetric analysis
TLC	Thin layer chromatography
TMSCN	Trimethylsilyl cyanide
UAOS	Ultrasound assisted organic synthesis
UV/Vis	Ultraviolet/Visible
XPS	X-ray photoelectron spectroscopy
XRD	X-ray diffraction pattern